

Serial No. 10/674,926

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AMENDMENT

DRAWINGS

The attached sheet (Figure 3) replaces the sheet for Figure 3 originally filed. The replacement sheet includes the elements disclosed in the specification at paragraph [0038] which were inadvertently omitted from the prior drawing sheet.

REMARKS/ARGUMENTS

Claims 1-15 and 17-20 were pending in the application and have been rejected. Claims 1-15 and 17-20 have been cancelled and replaced by new claims 21-40. Applicant is submitting a replacement sheet with a new figure 3, replacing the prior figure 3, which is now cancelled. Support for the new figure 3 is in the written description at paragraph [0038]. Applicant respectfully requests reconsideration.

CLAIM OBJECTIONS

The Office Action pointed out that the numbering of the claims was not in accordance with 37 CFR 1.126. Therefore, to avoid further confusion, all pending claims have been canceled and replaced by new claims 21-40.

CLAIM REJECTIONS UNDER 35 U.S.C. §102

The Office Action rejected claims 1-6, 9-13 and 9-19 under 35 U.S.C. §102 as being anticipated by US Patent Application No. 2004/0255283 issued to Rudelic et al. (hereafter, "Rudelic"). To the extent that the rejection applies to the new claims, Applicant respectfully traverses the rejection for the following reasons.

Rudelic discusses a "first flash memory 170 may be different than the second flash memory 172 at least in one relative performance metric, such as the rate of power consumption...[emphasis added]" New claim 21 as the replacement for canceled claim 1, provides that accessing information in the first level consumes more energy than accessing information in the second level. Energy and power are not the same thing. Power is defined as the rate at which work (energy) is done. See "Halliday & Resnick, Physics Part I," Wiley (1966) at page 145.

It is possible to have a memory type A and a memory type B where accessing information in A consumes MORE energy than accessing information in B while at the same time it is true that accessing information in A requires LESS power than in B. To see how this may be true, let's denote the energy consumption in each memory type A and B as E_a and E_b ,

respectively. Now let's denote the power consumption in each memory type A and B as P_a and P_b , respectively, and let's denote the time it takes to access info in each memory type A and B as T_a and T_b , respectively. We can now see that if T_a is sufficiently larger than T_b , that it may be true that $E_a = T_a * P_a > E_b = T_b * P_b$ even though $P_a < P_b$. Therefore, Rudelic does not anticipate the invention of claim 21.

Claims 22-28 are dependent on claim 21 and hence also incorporate the above limitation. Therefore, Rudelic does not anticipate those claims.

Independent claim 37, which replaces claim 18, comprises steps of monitoring the system to determine whether the operating state of the system satisfies one or more **energy**-conserving criteria; and storing only strategically selected storage data in managed storage when the operating state of the system satisfies one or more **energy**-conserving criteria. Because Rudelic concerns *power saving*, not *energy conservation*, it does not teach or suggest the claimed limitations.

Claim 38 is also not anticipated by Rudelic because Rudelic does not teach or suggest any use of energy-conserving criteria which are used in each element of claim 38.

CLAIM REJECTIONS UNDER 35 U.S.C. §103.

The Office Action rejected claims 7 and 8 (new claims 27 and 28) as unpatentable over Rudelic in view of Thelander (U. S. Patent Application 2003/0009705). The Office Action admits that Rudelic is silent on (i.e., does not teach) that the system stores current user profiles and the system state information comprises whether storage input/output data are associated with a current user profile but alleges that Thelander suggests those limitations. Thelander is also concerned with power conservation. As shown above, power conservation is not the same or the equivalent of energy conservation. Therefore, the combination of Rudelic and Thelander do not teach or suggest the use of energy-conserving criteria (as claimed in claim 23, from which claims 27 and 28 depend).

Claim 32 is not obvious over Rudelic in view of Atkinson (U.S. 6,029,249). As the Office Action admits, Atkinson, as Rudelic, are in the field of computer system power


consumption. Therefore, neither of these references, whether viewed individually or in combination, discuss the claimed energy-conserving criteria and hence do not render claim 32 unpatentable.

Claims 34-35, 37, and 40 are not rendered obvious by the combination of Rudelic and Kimura. Claims 34 and 35 depend on claim 21 and are thus patentable over Rudelic and Kimura for at least the same reasons discussed with respect to claim 21. Claim 37 requires a second level non-volatile storage for storing information according to a set of **energy-saving** criteria. As shown above Rudelic is not concerned with energy-saving criteria. Kimura also fails to mention energy-saving criteria. Therefore, the combination of Rudelic and Kimura fails to teach or suggest the limitations of monitoring the system to determine whether the operating state of the system satisfies one or more energy-conserving criteria; and storing only strategically selected storage data in managed storage when the operating state of the system satisfies one or more energy-conserving criteria.

Claim 40 is not rendered obvious by the combination of Rudelic and Kimura because the combination of references does not teach or suggest at least a first level of storage or an energy use detector.

For the foregoing reasons, Applicant respectfully requests allowance of the pending claims and that a timely Notice of Allowance be issued in this case.

Respectfully submitted,


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